Application No. 10/583,098
Reply to Office Action of October 14, 2010 and
the Advisory Action of January 26, 2011

IN THE CLAIMS

Please amend the claims as follows:

1-26. (Canceled)

27. (Currently Amended) A heterogeneous wireless data transmission network comprising:

a first master node;

a second master node;

a passive slave node including a first passive receiver and a first passive transmitter configured to modulate and reflect external RF signals, said passive slave node being configured to transmit data to the master node by modulated backscatter (MBS) communication using the first passive transmitter; and

an active slave node including a second passive transmitter configured to modulate and reflect external RF signals and a first active transmitter configured to transmit a modulated signal independently, said active slave node being configured to transmit data to the passive slave node using the first active transmitter, wherein

one of the first and second master nodes is configured to wake up the passive slave node or the active slave node from a sleep state at any time by transmitting a wake-up signal to the passive slave node or the active slave node,

the first passive receiver is configured to receive the wake-up signal and the first passive transmitter is configured to transmit data after the passive slave node is woken up from the sleep state,

the second master node is configured to provide an electromagnetic field to allow MBS communication and does not take part in the MBS communication while providing the electromagnetic field, and

2

Application No. 10/583,098
Reply to Office Action of October 14, 2010 and
the Advisory Action of January 26, 2011

only the first master node is configured to receive the data from the first passive

transmitter when the second master node provides the electromagnetic field.

28. (Previously Presented) The network according to claim 27, wherein the active

slave node is configured to wake up the passive slave node or another active slave node from

the sleep state at any time by transmitting the wake-up signal to the passive slave node or the

another active slave node.

29. (Previously Presented) The network according to claim 27, wherein at least one

of the first and second master nodes further comprises:

a second active transmitter configured to transmit data to the first active transmitter of

the active slave node.

30. (Previously Presented) The network according to claim 27, wherein the passive

slave node further comprises:

a processing unit configured to process and create dynamic data for transmission by

the first passive transmitter.

31. (Previously Presented) The network according to claim 27, wherein the passive

slave node includes a power supply.

32. (Previously Presented) The network according to claim 31, wherein the active

slave node further comprises:

a sensor element configured to detect operational parameters of the active slave node

or environmental data.

Application No. 10/583,098
Reply to Office Action of October 14, 2010 and
the Advisory Action of January 26, 2011

33. (Previously Presented) The network according to claim 32, wherein the passive slave node or the active slave node further comprises:

a remotely controllable actuator element configured to execute programmable actions.

34. (Currently Amended) The network according to claim 33, wherein the passive slave node or the active slave node is configured to transmit data to at least one of the first and second master node nodes by modulating and reflecting an external signal transmitted from the second master node.

35. (Previously Presented) The network according to claim 34, wherein

the wake-up signal further includes identification information,

the passive slave node or the active slave node is configured to switch from the sleep state to an identification information detection state upon reception of the wake-up signal,

the active slave node or the passive slave node, in the identification information detection state, is configured to switch to a control data reception state for receiving control data when the wake-up signal includes identification information identifying the active slave node or the passive slave node, respectively, and

the active slave node or the passive slave node, in the identification information detection state, is configured to switch to the sleep state if the wake-up signal does not include said identification information identifying the active slave node or the passive slave node, respectively.

Application No. 10/583,098
Reply to Office Action of October 14, 2010 and
the Advisory Action of January 26, 2011

36. (Previously Presented) The network according to claim 35, wherein the identification information includes an identifier of the passive slave node or the active slave node.

37. (Previously Presented) The network according to claim 35, wherein the identification information identifies a group of passive slave nodes or a group of active slave nodes.

38. (Previously Presented) The network according to claim 35, wherein the identification information identifies all passive slave nodes or all active slave nodes.

39. (Previously Presented) The network according to claim 35, wherein the passive slave node or the active slave node power consumption is smaller in the sleep state than in the identification information detection state and is smaller in the identification information detection state than in the data control reception state.

40. (Previously Presented) The network according to claim 27, wherein the network is configured in a hybrid star or meshed topology.

41. (Previously Presented) The network according to claim 27, wherein at least one of the first and second master nodes includes a bridge that provides a wireless or wired communication link to at least the other master node.

Application No. 10/583,098
Reply to Office Action of October 14, 2010 and
the Advisory Action of January 26, 2011

42. (Previously Presented) The network according to claim 27, wherein the active slave node comprises a second passive receiver, wherein at least one of the first and second master nodes further comprises:

an active receiver that has a higher power consumption and sensitivity than the first passive receiver in the passive slave node or the second passive receiver in the active slave node, and the first passive receiver in the passive slave node or the second passive receiver in the active slave node has a lower power consumption and sensitivity than the active receiver in the at least one of the first and second master nodes.